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RAILROAD COMMISSION OF TEXAS HEARINGS DIVISION

OIL AND GAS DOCKET NO. 04-0290063

THE APPLICATION OF EOG RESOURCES INC. FOR A NEW FIELD DESIGNATION FOR THE SON OF ZUNI, S. (VXBG) FIELD AND TO ADOPT FIELD RULES FOR THE PROPOSED SON OF ZUNI, S. (VXBG) FIELD KLEBERG COUNTY, TEXAS

HEARD BY: Karl Caldwell – Technical Examiner

Laura Miles-Valdez - Legal Examiner

DATE OF HEARING: September 23, 2014 **REPORT PREPARED:** January 5, 2015 **CONFERENCE DATE:** January 27, 2015

APPEARANCES: REPRESENTING:

APPLICANT: EOG Resources, Inc.

Doug Dashiell Gary Travis

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

EOG Resources, Inc. ("EOG") requests a new field designation for the proposed Son of Zuni, S. (VXBG) Field and to adopt temporary field rules for the proposed field. EOG proposes to adopt the following field rules:

- A correlative interval from 12,700 feet to 14,300 feet as shown on the High Definition Induction Log of the King Ranch Laguna Larga Lease, Well No. 890 (API No. 42-273-32626) to be designated as a single reservoir for proration purposes and be designated as the Son of Zuni, S. (VXBG) Field;
- 2. 467'-0' well spacing (lease line, between well spacing);
- 3. Statewide 40 acre density units.

Notice of the application was sent to all operators with active wells within 2.5 miles of the discovery well. The application is not protested. The examiners recommend approval of a new field designation for the Son of Zuni, S. (VXBG) Field and to adopt temporary field rules as proposed by EOG.

DISCUSSION OF THE EVIDENCE

The original application for a new field discovery and to adopt temporary field rules for the proposed Son of Zuni, S. (VXBG) Field was received by the Commission on June 20, 2014. EOG requested to designate an interval from 9,743 feet to 14,300 feet on the High Definition Induction log of the King Ranch Laguna Larga 890 Well (API No. 42-273-32626) as the designated interval. EOG revised this interval to 12,700 feet to 14,300 feet as shown on the same log when it was determined that only the lower 1,600 feet shown on the log is a new field. The discovery well for the proposed field, King Ranch Laguna Larga 890 Well, was completed on March 30, 2014.

The perforated intervals in the discovery well produce from a reservoir that has not been produced in existing wells within a 2.5 mile radius. All wells within a 2.5 mile radius of the discovery well for the proposed field produce from a shallower section in the Vicksburg Formation as compared to the proposed new field. Exxon Mobil ("EOM") is the only other operator in the proposed new field, and EOG and EOM have a joint venture on the King Ranch Lease.

The reservoir is a retrograde condensate reservoir and the drive mechanism is pressure depletion. The depth of the reservoir is 12,700 feet to 14,300 feet. The initial bottomhole pressure is 11.350 psi, or 0.84 to 0.85 psi per foot. The average reservoir temperature is approximately 300 degrees Fahrenheit. The average dew point is 4223 psi, with porosity ranging from 12% to 25% and low permeability (less than 0.01 millidarcies). The average water saturation is 52%.

The discovery well was perforated in four separate intervals, each of which would be uneconomic to produce individually. The operator would have to abandon wells completed in the proposed field earlier in the life of the well if the zones could not be produced together. There is no cross flow between the perforated zones. A water analysis showed that the formation water has low scaling tendencies. Mr. Gary Travis, a witness representing EOG, testified that there are no fluid compatibility issues in producing the zones together.

EOG is proposing 467 feet lease line spacing with zero between well spacing. The request for no between well spacing is due to the heterogeneous and layered nature of the reservoir, in conjunction with faulting and compartmentalization. Operators may encounter problems with collapsing wellbores, and if an operator needed to replace a wellbore, the operator would not want to have to move the new wellbore too far away from the previous wellbore. In addition, the King Ranch Lease

contains fences and pastures, along with other surface obstructions and topography that factor into well placement. EOG is also proposing standard 40 acre density units.

FINDINGS OF FACT

- 1. Notice of the application was sent to all operators with active wells within 2.5 miles of the discovery well at least ten days prior to the date of hearing and no protests were received.
- 2. EOG requests a new field designation for the Son of Zuni, S. (VXBG) Field and to adopt field rules for the proposed field.
- 3. The discovery well for the Son of Zuni, S. (VXBG) Field is the King Ranch Laguna Larga Lease, Well No. 890 (API No. 42-273-32626), Kleberg County, Texas.
- 4. All wells within a 2.5 mile radius of the discovery well for the proposed field produce from a shallower section in the Vicksburg Formation as compared to the proposed new field.
- 5. The discovery well was perforated in four separate intervals, each of which would be uneconomic to produce individually.
- 6. There is no cross flow between the perforated zones in the discovery well and a water analysis showed that the formation water has low scaling tendencies.

CONCLUSIONS OF LAW

- 1. Proper notice was issued as required by all applicable statutes and regulatory codes.
- 2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
- 3. Granting a new field designation for the Son of Zuni, S. (VXBG) Field and adopting special field rules will prevent waste.